=> d l12 29 all

L12 ANSWER 29 OF 382 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
AN 1999:368402 BIOSIS
DN PREV199900368402
TI High ***alcohol production*** by solid substrate fermentation from starchy substrates using thermotolerant Saccharomyces cerevisiae.
AU Sree, N. K.; Sridhar, M.; Suresh, K.; Rao, L. V. [Reprint author]
CS Department of Microbiology, Osmania University, Hyderabad, Andhra Pradesh, 500007, India
SO Bioprocess Engineering, (June, 1999) Vol. 20, No. 6, pp. 561-563. print. CODEN: BIENEU. ISSN: 0178-515X.
DT Article
LA English
ED Entered STN: 9 Sep 1999
Last Updated on STN: 9 Sep 1999
AB Solid Substrate Fermentation system (SSF) was used to produce ethanol from various starchy substrates like sweet sorghum, sweet potato, wheat flour, rice ***starch***, soluble ***starch*** and potato ***starch*** using thermotolerant yeast isolate (VS3) by simultaneous saccharification and fermentation process. Alcohol produced was estimated by gas chromatography after an incubation time of 96 hrs at 37degreeC and 42degreeC. More ethanol was produced from rice ***starch*** and sweet sorghum. The maximum amount of ethanol produced from these substrates using VS3 was 10 g/100 g and 3.5 g/100 g substrate (rice ***starch***) and 8.2 g and 7.5 g/100 g substrate (sweet sorghum) at 37degreeC and 42degreeC respectively.
CC Food microbiology - General and miscellaneous 39008
Biochemistry methods - General 10050
Biochemistry studies - General 10060
Plant physiology - Metabolism 51519
Metabolism - General metabolism and metabolic pathways 13002
Microorganisms - General 29500
IT Major Concepts
Bioprocess Engineering; Methods and Techniques
IT Chemicals & Biochemicals
ethanol: production; rice ***starch***: substrate; soluble ***starch***: substrate; sweet potato ***starch***: substrate; sweet sorghum ***starch***: substrate
IT Methods & Equipment
high ***alcohol production***: production method, synthetic method; solid-substrate fermentation: production method, synthetic method
IT Miscellaneous Descriptors
wheat flour: substrate
ORGN Classifier
Ascomycetes 15100
Super Taxa
Fungi; Plantae
Organism Name
Saccharomyces cerevisiae: thermotolerant
Taxa Notes
Fungi, Microorganisms, Nonvascular Plants, Plants
ORGN Classifier
Convolvulaceae 25850
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
sweet potato
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
ORGN Classifier

Gramineae 25305
Super Taxa
Monocotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
sweet sorghum
wheat
Taxa Notes
Angiosperms, Monocots, Plants, Spermatophytes, Vascular Plants
RN 64-17-5 (ethanol)
9005-25-8 (rice ***starch***)
9005-84-9 (soluble ***starch***)

=> d l14 6 all

L14 ANSWER 6 OF 10 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
AN 2002280312 EMBASE
TI Allocation procedure in ethanol production system from corn grain: I. System expansion.
AU Kim S.; Dale B.E.
CS B.E. Dale, Department of Chemical Engineering, Engineering Building, Michigan State University, East Lansing, MI 48824-1226, United States. bdale@egr.msu.edu
SO International Journal of Life Cycle Assessment, (2002) Vol. 7, No. 4, pp. 237-243. .
Refs: 12
ISSN: 0948-3349 CODEN: IJLCFF
CY Germany
DT Journal; Article
FS 029 Clinical Biochemistry
046 Environmental Health and Pollution Control
LA English
SL English
ED Entered STN: 22 Aug 2002
Last Updated on STN: 22 Aug 2002
AB We investigated the system expansion approach to net energy analysis for ethanol production from domestic corn grain. Production systems included in this study are ***ethanol production from corn*** dry milling and corn wet milling, corn grain production (the agricultural system), soybean products from soybean milling (i.e. soybean oil and soybean meal) and urea production to determine the net energy associated with ethanol derived from corn grain. These five product systems are mutually interdependent. That is, all these systems generate products which compete with or displace all other comparable products in the market place. The displacement ratios between products compare the equivalence of their marketplace functions. The net energy, including transportation to consumers, is 0.56 MJ(net)/MJ of ethanol from corn grain regardless of the ethanol production technology employed. Using ethanol as a liquid transportation fuel could reduce domestic use of fossil fuels, particularly petroleum. Sensitivity analyses show that the choice of allocation procedures has the greatest impact on fuel ethanol net energy. Process energy associated with wet milling, dry milling and the corn agricultural process also significantly influences the net energy due to the wide ranges of available process energy values. The system expansion approach can completely eliminate allocation procedures in the foreground system of ***ethanol production from corn*** grain.
CT Medical Descriptors:
*corn
grain
system analysis
energy
soybean
market
technology
agriculture
nonhuman
article
priority journal
Drug Descriptors:
*alcohol
petroleum
fossil fuel
RN (alcohol) 64-17-5; (petroleum) 8002-05-9